

Date: Sat, 15 Jan 94 20:59:40 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #41
To: Info-Hams

Info-Hams Digest Sat, 15 Jan 94 Volume 94 : Issue 41

Today's Topics:

 Daily Summary of Solar Geophysical Activity for 14 January
 VANITY CALLS INFO
 Weekly Solar Terrestrial Forecast & Review for 14 January

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Problems you can't solve otherwise to brian@ucsd.edu.

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We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 14 Jan 1994 21:12:52 MST
From: cs.utexas.edu!math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!
alberta!adec23!ve6mgs!usenet@uunet.uu.net
Subject: Daily Summary of Solar Geophysical Activity for 14 January
To: info-hams@ucsd.edu

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DAILY SUMMARY OF SOLAR GEOPHYSICAL ACTIVITY

14 JANUARY, 1994

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(Based In-Part On SESC Observational Data)

SOLAR AND GEOPHYSICAL ACTIVITY INDICES FOR 14 JANUARY, 1994

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!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 014, 01/14/94
10.7 FLUX=090.2  90-AVG=102      SSN=046      BKI=3333 3323  BAI=014
BGND-XRAY=B1.9    FLU1=6.6E+06  FLU10=1.3E+04  PKI=3344 4333  PAI=019
  BOU-DEV=023,036,035,033,033,020,019,024  DEV-AVG=027 NT    SWF=00:000
  XRAY-MAX= C1.6   @ 1612UT    XRAY-MIN= B1.4   @ 0138UT    XRAY-AVG= B2.5
NEUTN-MAX= +001%  @ 2335UT    NEUTN-MIN= -004%  @ 0835UT    NEUTN-AVG= -0.3%
  PCA-MAX= +0.1DB @ 0645UT    PCA-MIN= -0.3DB @ 0740UT    PCA-AVG= -0.0DB
BOUTF-MAX=55354NT @ 0325UT    BOUTF-MIN=55325NT @ 1950UT    BOUTF-AVG=55338NT
GOES7-MAX=P:+000NT@ 0000UT    GOES7-MIN=N:+000NT@ 0000UT    G7-AVG=+056,+000,+000
GOES6-MAX=P:+123NT@ 1606UT    GOES6-MIN=N:-072NT@ 0635UT    G6-AVG=+081,+029,-034
  FLUXFCST=STD:095,100,105;SESC:095,100,105  BAI/PAI-FCST=015,012,010/015,012,010
    KFCST=2344 3322 2334 2222  27DAY-AP=013,009  27DAY-KP=2233 2343 3332 2221
WARNINGS=*SWF
ALERTS=
!!END-DATA!!

```

NOTE: The Effective Sunspot Number for 13 JAN 94 was 53.0.
 The Full Kp Indices for 13 JAN 94 are: 4- 4o 3o 3o 5- 3+ 3- 4o

SYNOPSIS OF ACTIVITY

Solar activity became low. Region 7648 (N07W79) produced a C1/SF at 0916Z. Another C1 occurred at 1612Z and was coincident in time with the beginning of an active surge region near NE05. The delta configuration in Region 7650 (N05W67) appears to have faded.

Solar activity forecast: solar activity should continue generally low with the emphasis shifting from the west limb to the new region at the east limb. Due to the lack of frequent burst activity, it is likely old Region 7640 will not be as active this rotation as it was last rotation.

The geomagnetic field was generally unsettled to active. Intermittent minor to major storm periods were observed at some high latitude sites.

Geophysical activity forecast: the geomagnetic field should continue unsettled to slightly active for 15-16 Jan. High latitudes should expect isolated storm conditions. Mostly unsettled levels are predicted for 17 Jan.

Event probabilities 15 jan-17 jan

Class M	20/20/20
Class X	01/01/01

Proton 01/01/01
PCAF Green

Geomagnetic activity probabilities 15 jan-17 jan

A. Middle Latitudes
Active 40/40/30
Minor Storm 15/15/10
Major-Severe Storm 01/01/01

B. High Latitudes
Active 50/50/40
Minor Storm 20/20/10
Major-Severe Storm 05/05/01

HF propagation conditions were near-normal from the middle to equatorial paths. Occasional minor signal degradation persisted on higher latitude paths, particularly night-sector transauroral circuits. Similar, if not gradually improving, conditions are expected over the next 72 hours.

COPIES OF JOINT USAF/NOAA SESC SOLAR GEOPHYSICAL REPORTS

REGIONS WITH SUNSPOTS. LOCATIONS VALID AT 14/2400Z JANUARY

NMBR	LOCATION	LO	AREA	Z	LL	NN	MAG	TYPE
7648	N07W80	022	0110	DAO	08	006	BETA	
7650	N05W68	010	0150	EAO	12	011	BETA	
7651	S06W47	349	0030	HRX	01	001	ALPHA	

REGIONS DUE TO RETURN 15 JANUARY TO 17 JANUARY

NMBR	LAT	LO
7640	N08	206
7641	N05	201
7644	N10	195

LISTING OF SOLAR ENERGETIC EVENTS FOR 14 JANUARY, 1994

A. ENERGETIC EVENTS:

BEGIN	MAX	END	RGN	LOC	XRAY	OP	245MHZ	10CM	SWEEP
0157	0157	0157						130	
0343	0343	0344						4000	

POSSIBLE CORONAL MASS EJECTION EVENTS FOR 14 JANUARY, 1994

 BEGIN MAX END LOCATION TYPE SIZE DUR II IV
 NO EVENTS OBSERVED

INFERRED CORONAL HOLES. LOCATIONS VALID AT 14/2400Z

ISOLATED HOLES AND POLAR EXTENSIONS
 EAST SOUTH WEST NORTH CAR TYPE POL AREA OBSN
 NO DATA AVAILABLE FOR ANALYSIS

SUMMARY OF FLARE EVENTS FOR THE PREVIOUS UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
13 Jan:	0336	0341	0348	B4.4						
	0912	0918	0922	B6.8	SF	7650	N07W50			
	1048	1058	1103		SF	7650	N04W50			
	1520	1525	1530	B4.0	SF	7648	N06W56			
	1815	1825	1834	B4.0						
	2015	2025	2041	B6.8						

REGION FLARE STATISTICS FOR THE PREVIOUS UTC DAY

	C	M	X	S	1	2	3	4	Total	(%)
Region 7648:	0	0	0	1	0	0	0	0	001	(16.7)
Region 7650:	0	0	0	2	0	0	0	0	002	(33.3)
Uncorrelated:	0	0	0	0	0	0	0	0	003	(50.0)

Total Events: 006 optical and x-ray.

EVENTS WITH SWEEPS AND/OR OPTICAL PHENOMENA FOR THE LAST UTC DAY

Date	Begin	Max	End	Xray	Op	Region	Locn	Sweeps/Optical Observations
NO EVENTS OBSERVED.								

NOTES:

All times are in Universal Time (UT). Characters preceding begin, max, and end times are defined as: B = Before, U = Uncertain, A = After.
 All times associated with x-ray flares (ex. flares which produce

associated x-ray bursts) refer to the begin, max, and end times of the x-rays. Flares which are not associated with x-ray signatures use the optical observations to determine the begin, max, and end times.

Acronyms used to identify sweeps and optical phenomena include:

II	= Type II Sweep Frequency Event
III	= Type III Sweep
IV	= Type IV Sweep
V	= Type V Sweep
Continuum	= Continuum Radio Event
Loop	= Loop Prominence System,
Spray	= Limb Spray,
Surge	= Bright Limb Surge,
EPL	= Eruptive Prominence on the Limb.

** End of Daily Report **

Date: Thu, 13 Jan 1994 15:42:40 GMT
From: psinntp!arrl.org!gswanson@uunet.uu.net
Subject: VANITY CALLS INFO
To: info-hams@ucsd.edu

The text of the NPRM in PR Docket 93-305, dealing with the Commission's proposed Vanity Call Sign program, is available electronically on the following services: Compuserve, America Online, BIX and NVN (National Video Network). The file is named 'VANITY' on there services.

The file is also available on the Internet from the ARRL information server. Send a message to "info@arrl.org" with the following (and only the following) in the text of the message: "SEND FCC-93-305". If you want to find out more about the info server, put only the word "HELP" in the text of your message.

If you have Internet ftp capability, the file is available in the /pub/hamradio/ARRL file area on world.std.com (file name is FCC-93-305).

The file is also available for downloading from the ARRL bulletin board (203-666-0578) with the file name VANITY.

And, finally, the full text will be printed in Feburary QST.

73, Glenn KB1GW

Date: Fri, 14 Jan 1994 06:44:12 MST
From: library.ucla.edu!agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!
math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!alberta!adec23!ve6mgs!

To: info-hams@ucsd.edu

January 14 to January 23, 1994

Accessible BBS System: (403) 756-3008

	10.7 cm	HF Propagation +/ - CON							SID				AU.BKSR DX				Mag		Aurora			
	SolrFlx	LO	MI	HI	PO	SWF	%MUF	%	ENH	LO	MI	HI	LO	MI	HI	%	K	Ap	LO	MI	HI	
--	----	-----							-----				-----				----		-----			
14	097	G	G	P	F	40	-10	70	40	NA	NA	NA	01	20	30	30	4	15	NV	NV	MO	
15	105	VG	G	F	F	40	00	75	40	NA	NA	NA	01	15	25	30	3	12	NV	NV	MO	
16	115	VG	G	F	F	40	+05	70	40	NA	NA	NA	01	10	20	35	2	10	NV	NV	LO	
17	115	VG	G	F	F	40	+10	70	40	NA	NA	NA	01	05	15	35	2	10	NV	NV	LO	
18	120	VG	G	F	F	40	+10	70	40	NA	NA	NA	01	05	15	40	2	10	NV	NV	LO	
19	125	VG	G	F	F	40	+15	65	40	NA	NA	NA	01	05	15	45	2	08	NV	NV	LO	
20	125	VG	G	F	F	40	+15	65	40	NA	NA	NA	01	05	15	45	2	08	NV	NV	LO	
21	130	VG	G	F	F	40	+20	65	40	NA	NA	NA	01	05	15	45	2	08	NV	NV	LO	
22	130	VG	G	F	F	40	+20	65	40	NA	NA	NA	02	10	20	45	2	10	NV	NV	LO	
23	135	VG	G	P	P	40	+15	65	40	NA	NA	NA	02	20	30	40	3	12	NV	LO	MO	

EXTREMELY SEVERE												HIGH
VERY SEVERE STORM												HIGH
SEVERE STORM												MODERATE
MAJOR STORM												LOW - MOD.
MINOR STORM												LOW
VERY ACTIVE	*											NONE
ACTIVE	***	**									*	NONE
UNSETTLED	***	***	***	**	**	**	**	**	**	**	***	NONE
QUIET	***	***	***	***	***	***	***	***	***	***	***	NONE
VERY QUIET	***	***	***	***	***	***	***	***	***	***	***	NONE
-----	---	---	---	---	---	---	---	---	---	---	---	-----
Geomagnetic Field	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun		Anomaly
Conditions	Given in 8-hour UT intervals										Intensity	

CONFIDENCE LEVEL: 75%

NOTES:

Predicted geomagnetic activity is based heavily on recurrent phenomena. Transient energetic solar events cannot be predicted reliably over periods in excess of several days. Hence, there may be some deviations from the predictions due to the unpredictable transient solar component.

60-DAY GRAPHICAL ANALYSIS OF GEOMAGNETIC ACTIVITY

```

51 |-----J-----|
48 |-----J-----|
46 |-----J-----|
43 |-----J-----|
41 |-----J-----|
38 |-----M J-----|
36 |-----MM J-----|
33 |-----MM J-----|
31 |-----MM J-----|
28 |-----MM J-----|
26 |-----MM J-----|
23 |-----MM J-----|
20 |-----AMM J-----A A|
18 |AA-----AMM J-----A AAA AA|
15 |AA-----AMM AJ-----AA AAAA AAA|
13 |AA-----AMM AJ-----AAU U AAAA AAA|
10 |AA-----AMM AJ-----AAU U AAAAU U AAA|
8 |U AAU U U AMMUU AJ U UAAUUUUUUU AAAAU U U AAA|
5 |UQAAU Q QU U AMMUUQAJQUUU UAAUUUUUUUU AAAAUQ UQU AAA|
3 |UQAAUQQQQQUQQUQAMMUUQAJQUUUUQQUAAUUUUUUUUUQQQQAAAAUQQUUQQQAAA|
0 |UQAAUQQQQQUQQUQAMMUUQAJQUUUUQQUAAUUUUUUUUUQQQQAAAAUQQUUQQQAAA|

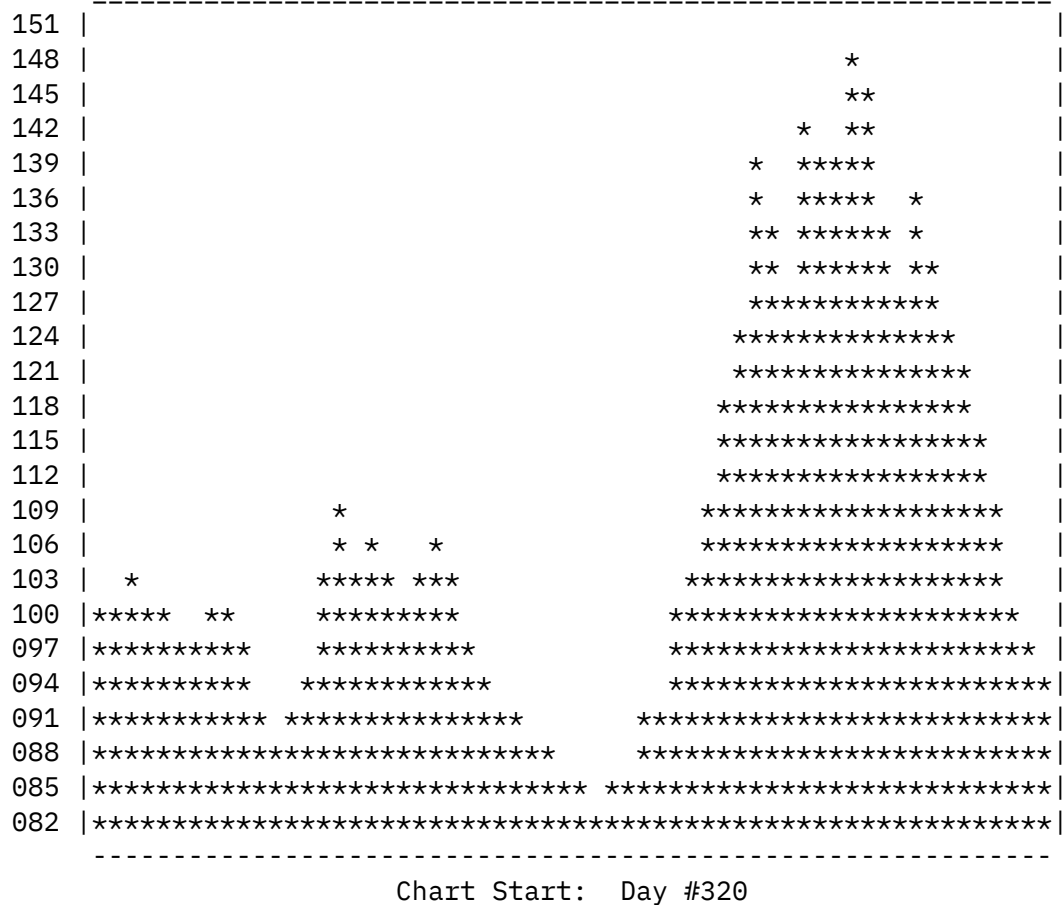
```

Chart Start Date: Day #320

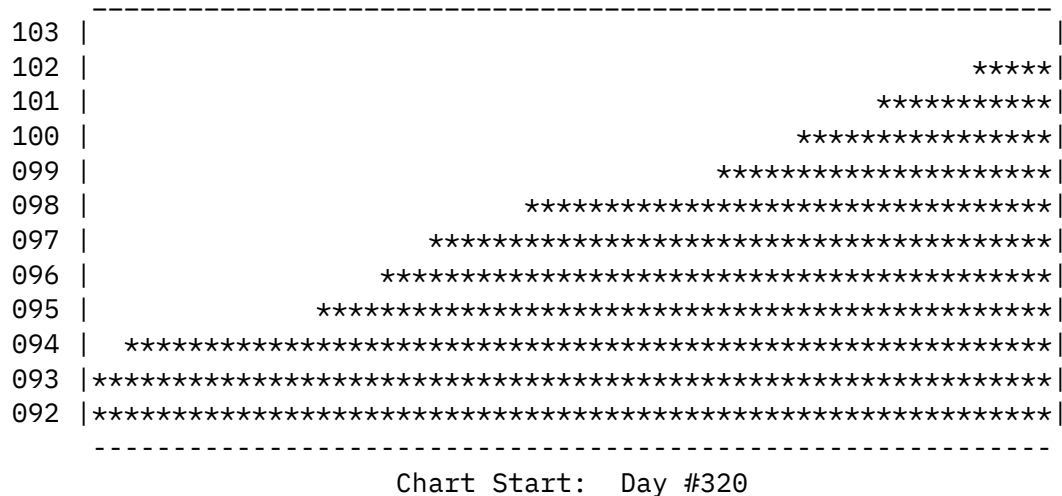
NOTES:

This graph is determined by plotting the greater of either the planetary A-index or the Boulder A-index. Graph lines are labelled according to the severity of the activity which occurred on each day. The left-hand column represents the associated A-Index for that day.
Q = Quiet, U = Unsettled, A = Active, M = Minor Storm,
J = Major Storm, and S = Severe Storm.

CUMULATIVE GRAPHICAL CHART OF THE 10.7 CM SOLAR RADIO FLUX



GRAPHICAL ANALYSIS OF 90-DAY AVERAGE SOLAR FLUX



NOTES:

The 10.7 cm solar radio flux is plotted from data reported by the Penticton Radio Observatory (formerly the ARO from Ottawa). High solar flux levels denote higher levels of activity and a greater number of sunspot groups on the Sun. The 90-day mean solar flux graph is charted from the 90-day mean of the 10.7 cm solar radio flux.

CUMULATIVE GRAPHICAL CHART OF SUNSPOT NUMBERS

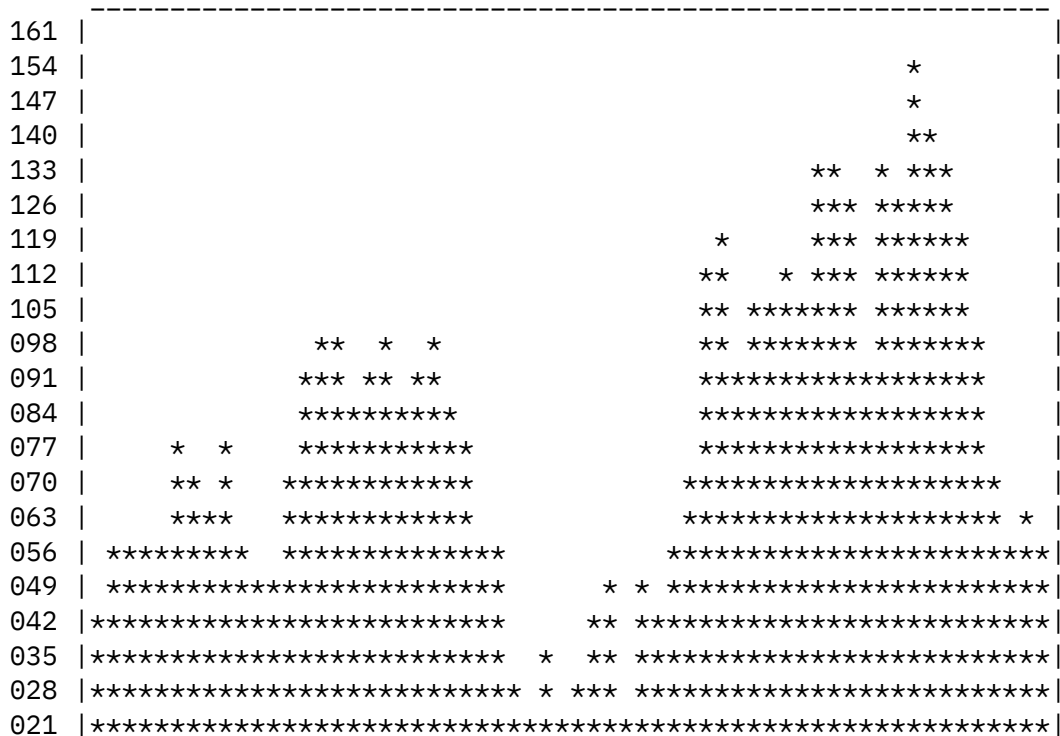


Chart Start: Day #320

NOTES:

The graphical chart of sunspot numbers is created from the daily sunspot number counts as reported by the SESC.

HF RADIO SIGNAL PROPAGATION PREDICTIONS (14 JAN - 23 JAN)

High Latitude Paths

EXTREMELY GOOD | | | | | | | | | |

CONFIDENCE LEVEL ----- 70%	VERY GOOD												
	GOOD												
	FAIR	*	**	***	***	***	***	***	***	***	***	**	
	POOR	* *	*										
	VERY POOR												*
	EXTREMELY POOR												
-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
PROPAGATION QUALITY		Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
		Given in 8 Local-Hour Intervals											

Middle Latitude Paths

CONFIDENCE LEVEL ----- 70%	EXTREMELY GOOD												
	VERY GOOD						*	*	*	*	*		
	GOOD	**	***	***	***	* *	* *	* *	* *	* *	* *	***	
	FAIR	*											
	POOR												
	VERY POOR												
	EXTREMELY POOR												
-----		---	---	---	---	---	---	---	---	---	---	---	---
	PROPAGATION	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	QUALITY	Given in 8 Local-Hour Intervals											

Low Latitude Paths

CONFIDENCE LEVEL ----- 70%	EXTREMELY GOOD												
	VERY GOOD		*	*	**	**	**	**	**	**	**	**	**
	GOOD	***	* *	* *	*	*	*	*	*	*	*	*	*
	FAIR												
	POOR												
	VERY POOR												
	EXTREMELY POOR												
-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
PROPAGATION		Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
QUALITY		Given in 8 Local-Hour Intervals											

NOTES:

NORTHERN HEMISPHERE				SOUTHERN HEMISPHERE			
High latitudes	>= 55	deg. N.		High latitudes	>= 55	deg. S.	
Middle latitudes	>= 40 < 55	deg. N.		Middle latitudes	>= 30 < 55	deg. S.	
Low latitudes	< 40	deg. N.		Low latitudes	< 30	deg. S.	

POTENTIAL VHF DX PROPAGATION PREDICTIONS (14 JAN - 23 JAN)

INCLUDES SID AND AURORAL BACKSCATTER ENHANCEMENT PREDICTIONS

HIGH LATITUDES

FORECAST	Given in 8 hour local time intervals										SWF/SID ENHANCEMENT
CONFIDENCE	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	F S S M T W T F S S
											- - - - - - - - - -
0%	***	***	***	***	***	***	***	***	***	***	0% * * * * * * * * * *
20%	***	***	***	***	***	***	***	***	***	***	20% * * * * * * * * * *
40%	***	***	***	***	***	***	***	***	***	***	40%
60%	*	*	*	*	*	*	*	*	*	*	60%
80%											80%
100%											100%
=====	===	===	===	===	===	===	===	===	===	===	-----
100%											100%
80%											80%
60%											60%
40%	*	*	*	*	**	**	**	**	**	*	40%
20%	***	***	***	***	***	***	***	***	***	***	20% *
0%	***	***	***	***	***	***	***	***	***	***	0% * * * * * * * * * *
-----	---	---	---	---	---	---	---	---	---	---	- - - - - - - - - -
CHANCE OF	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	F S S M T W T F S S
VHF DX	Given in 8 hour local time intervals										AURORAL BACKSCATTER

MIDDLE LATITUDES

FORECAST	Given in 8 hour local time intervals										SWF/SID ENHANCEMENT
CONFIDENCE	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	F S S M T W T F S S
											- - - - - - - - - -
0%	***	***	***	***	***	***	***	***	***	***	0% * * * * * * * * * *
20%	***	***	***	***	***	***	***	***	***	***	20% * * * * * * * * * *
40%	***	***	***	***	***	***	***	***	***	***	40% * * * * * * * * * *
60%	***	***	***	***	* *	* *	* *	* *	* *	* *	60%
80%											80%
100%											100%
=====	===	===	===	===	===	===	===	===	===	===	-----
100%											100%
80%											80%
60%					*	*	*	*	*	*	60%
40%	***	***	***	***	***	***	***	***	***	***	40%
20%	***	***	***	***	***	***	***	***	***	***	20% *
0%	***	***	***	***	***	***	***	***	***	***	0% * * * * * * * * * *
-----	---	---	---	---	---	---	---	---	---	---	- - - - - - - - - -
CHANCE OF	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	F S S M T W T F S S
VHF DX	Given in 8 hour local time intervals										AURORAL BACKSCATTER

LOW LATITUDES

FORECAST Given in 8 hour local time intervals											SWF/SID ENHANCEMENT										
CONFIDENCE	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	F	S	S	M	T	W	T	F	S	S	
-----	---	---	---	---	---	---	---	---	---	---	-	-	-	-	-	-	-	-	-	-	
0%	***	***	***	***	***	***	***	***	***	***	0%	*	*	*	*	*	*	*	*	*	
20%	***	***	***	***	***	***	***	***	***	***	20%	*	*	*	*	*	*	*	*	*	
40%	***	***	***	***	***	***	***	***	***	***	40%	*	*	*	*	*	*	*	*	*	
60%	**	**	**	***	***	***	***	***	***	***	60%										
80%											80%										
100%											100%										
=====	==	==	==	==	==	==	==	==	==	==		-----									
100%											100%										
80%											80%										
60%	*	*	*	**	**	**	**	**	**	**	60%										
40%	***	***	***	***	***	***	***	***	***	***	40%										
20%	***	***	***	***	***	***	***	***	***	***	20%										
0%	***	***	***	***	***	***	***	***	***	***	0%	*	*	*	*	*	*	*	*	*	
-----	---	---	---	---	---	---	---	---	---	---		-	-	-	-	-	-	-	-	-	
CHANCE OF	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	F	S	S	M	T	W	T	F	S	S	
VHF DX	Given in 8 hour local time intervals										AURORAL BACKSCATTER										

NOTES:

These VHF DX prediction charts are defined for the 30 MHz to 220 MHz bands. They are based primarily on phenomena which can affect VHF DX propagation globally. They should be used only as a guide to potential DX conditions on VHF bands. Latitudinal boundaries are the same as those for the HF predictions charts.

AURORAL ACTIVITY PREDICTIONS (14 JAN - 23 JAN)

High Latitude Locations

CONFIDENCE LEVEL ----- 70%	EXTREMELY HIGH											
	VERY HIGH											
	HIGH											
	MODERATE	*									*	***
	LOW	***	***	***	***	***	***	***	***	***	***	***
	NOT VISIBLE	***	***	***	***	***	***	***	***	***	***	***
	-----	---	---	---	---	---	---	---	---	---	---	---
	AURORAL	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
	INTENSITY	Eve.Twilight/Midnight/Morn.Twilight										

Middle Latitude Locations

EXTREMELY HIGH | | | | | | | | | |

CONFIDENCE	VERY HIGH												
LEVEL	HIGH												
-----	MODERATE											*	
75%	LOW	*										*	***
	NOT VISIBLE	***	***	***	***	***	***	***	***	***	***	***	***
	-----	---	---	---	---	---	---	---	---	---	---	---	---
	AURORAL	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	INTENSITY	Eve.Twilight/Midnight/Morn.Twilight											

Low Latitude Locations

	EXTREMELY HIGH												
CONFIDENCE	VERY HIGH												
LEVEL	HIGH												
-----	MODERATE												
90%	LOW												
	NOT VISIBLE	***	***	***	***	***	***	***	***	***	***	***	***
	-----	---	---	---	---	---	---	---	---	---	---	---	---
	AURORAL	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun		
	INTENSITY	Eve.Twilight/Midnight/Morn.Twilight											

NOTE:

Version 2.00b of our Professional Dynamic Auroral Oval Simulation Software Package is now available. This professional software is particularly valuable to radio communicators, aurora photographers, educators, and astronomers. For more information regarding this software, contact: "Oler@Rho.Uleth.CA", or "Coler@Solar.Stanford.Edu".

For more information regarding these charts, send a request for the document, "Understanding Solar Terrestrial Reports" to: "Oler@Rho.Uleth.Ca" or to: "Coler@Solar.Stanford.Edu". This document, as well as others and related data/forecasts exist on the STD BBS at: (403) 756-3008.

** End of Report **

End of Info-Hams Digest V94 #41

